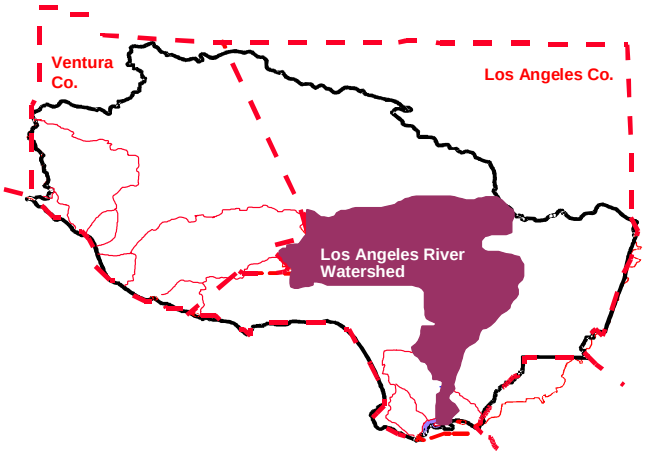
LOS ANGELES RIVER WATERSHED

This was the targeted watershed for permitting purposes in FY1997/99 and will be targeted again in FY2004/05.

Overview of Watershed



Size of watershed: 824 square miles

Length of river: 55 miles

The Los Angeles (LA) River watershed is one of the largest in the Region. It is also one of the most diverse in terms of land use patterns. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters which originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. The rest of the watershed is highly developed. The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by railyards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, rail lines, and rail yards serving the Ports of Los Angeles and Long Beach.

Major tributaries to the river in the San Fernando Valley are the Pacoima Wash, Tujunga Wash (both drain portions of the Angeles National Forest in the San Gabriel Mountains), Burbank Western Channel and Verdugo Wash (both drain the Verdugo Mountains). Due to major flood events at the beginning of the century, by the 1950's most of the river was lined with concrete. In the San Fernando Valley, there is a section of the river with a soft bottom at the Sepulveda Flood Control Basin. The Basin is a 2,150-acre open space upstream of the Sepulveda Dam designed to collect flood waters during major storms. Because the area is periodically inundated, it remains in a semi-natural condition and supports a variety of low-intensity uses as well as supplying habitat. At the eastern end of the San Fernando Valley, the river bends around the Hollywood Hills and flows through Griffith and Elysian Parks, in an area known as the Glendale Narrows. Since the water table was too high to allow laying of concrete, the river in this area has a rocky, unlined bottom with concrete-lined or rip-rap sides. This stretch of the river is fed by natural springs and supports stands of willows, sycamores, and cottonwoods. The many trails and paths along the river in this area are heavily used by the public for hiking, horseback riding, and bird watching.

South of the Glendale Narrows, the river is contained in a concrete-lined channel down to Willow Street in Long Beach. The main tributaries to the river in this stretch are the Arroyo Seco (which drains areas of Pasadena and portions of the Angeles National Forest in the San Gabriel Mountains), the Rio Hondo, and Compton Creek. Compton Creek supports a wetland habitat just before its confluence with the Los Angeles River. The river is hydraulically connected to the San

Gabriel River Watershed by the Rio Hondo through the Whittier Narrows Reservoir. Flows from the San Gabriel River and Rio Hondo merge at this reservoir during larger flood events, thus flows from the San Gabriel River Watershed may impact the LA River. Most of the water in the Rio Hondo is used for groundwater recharge during dry weather seasons. The San Gabriel River drains approximately 689 square miles, which includes the eastern San Gabriel Mountains and portions of the Chino, San Jose, and Puente Hills.

Beneficial Uses in watershed:

Estuary	*Above estuary*
Industrial service supply	Groundwater recharge
Contact & noncontact water recreation	Contact & noncontact water recreation
Navigation	Warmwater habitat
Commercial & sportfishing	Wetlands Habitat
Protection of rare & endangered species	Protection of rare & endangered species
Wildlife habitat	Wildlife habitat
Marine habitat	
Migration of aquatic organisms	
Spawning	
Estuarine habitat	

The LA River tidal prism/estuary begins in Long Beach at Willow Street and runs approximately three miles before joining with Queensway Bay located between the Port of Long Beach and the city of Long Beach. The channel has a soft bottom in this reach with concrete-lined sides. Queensway Bay is heavily water recreation-oriented; however, major pollutant inputs are likely more related to flows from the LA River which carries the largest storm flow of any river in southern California.

Also part of the watershed are a number of lakes including Peck Road Park, Belvedere Park, Hollenbeck Park, Lincoln Park, and Echo Park Lakes as well as Lake Calabasas. These lakes are heavily used for recreational purposes.

Four basins in the San Fernando Valley area contain substantial deep groundwater reserves and are recharged mainly through runoff and infiltration although the increase in impermeable surfaces has decreased infiltration. Groundwater basins in the San Gabriel Valley are not separated into distinct aquifers other than near the Whittier Narrows. Active recharge occurs in some of these areas through facilities operated by Los Angeles County. Spreading grounds recharge two basins in the coastal plain of Los Angeles west of the downtown area.

Permitted discharges:

- 147 NPDES discharges including: seven major NPDES dischargers (four POTWs); 30 minor permits; 110 dischargers covered by general permits
- Minor permits cover miscellaneous wastes such as ground water dewatering, recreational lake overflow, swimming pool wastes, and ground water seepage. Other permits are for discharge of treated contaminated ground water, noncontact cooling water, and storm water
- Two municipal storm water permits
- 1,307 dischargers covered under an industrial storm water permit
- 204 dischargers covered under a construction storm water permit

Water Quality Problems and Issues

Pollutants from dense clusters of residential, industrial, and other urban activities have impaired water quality in the middle and lower watershed. Added to this complex mixture of pollutant sources (in particular, pollutants associated with urban and stormwater runoff), is the high number of point source permits.

Types of permitted wastes discharged into the Los Angeles River Watershed:

Nature of Waste *Prior* to Treatment or Disposal	# of Permits	Types of Permits
Nonhazardous (designated) contaminated groundwater	2 12	Minor General
Nonhazardous (designated) contact cooling water	1	Minor
Nonhazardous (designated) domestic sewage & industrial waste	3	Major
Nonhazardous (designated) wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	1 7 50	Major Minor General
Nonhazardous (designated) noncontact cooling water	3 9	Minor General
Nonhazardous (designated) process waste (produced as part of industrial/manufacturing process)	2	Minor
Nonhazardous (designated) stormwater runoff	1 10 1	Major Minor General
Hazardous contaminated groundwater	2 10	Minor General
Nonhazardous (designated) domestic sewage	1 1	Major Minor
Nonhazardous (designated) filter backwash brine waters	2	Minor
Hazardous wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	1	General
Nonhazardous drilling muds	1	General
Nonhazardous wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	3	General
Nonhazardous contaminated groundwater	3	General
Inert filter backwash brine waters	1	General
Inert contaminated groundwater	1	General
Inert wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	15	General

Hazardous wastes are those influent or solid wastes that contain toxic, corrosive, ignitable, or reactive substances (prior to treatment or disposal) managed according to applicable Department of Health Services standards
Designated wastes are those influent or solid wastes that contain **nonhazardous** wastes (prior to treatment or disposal) that pose a significant threat to water quality because of their high concentrations
Nonhazardous wastes are those influent or solid wastes that do not contain soluble pollutants or organic wastes (prior to treatment or disposal) and have little adverse impact on water quality
Inert wastes are those influent or solid wastes that do not contain soluble pollutants or organic wastes (prior to treatment or disposal) and have little adverse impact on water quality

Major discharges are POTWs with a yearly average flow of over 0.5 MGD or an industrial source with a yearly average flow of over 0.1 MGD and those with lesser flows but with acute or potential adverse environmental impacts.

Minor discharges are all other discharges that are not categorized as a Major. Minor discharges may be covered by a general permit, which are issued administratively, for those that meet the conditions specified by the particular general permit.

A majority of the 147 NPDES discharges go directly to the Los Angeles River. Burbank Western Channel receives four discharges, Compton Creek receives five, and Eaton Wash receives three.

Of the 1,307 dischargers enrolled under the general industrial storm water permit in the watershed, the largest numbers occur in the cities of Los Angeles (many within the community of Sun Valley), Vernon, South Gate, Long Beach, Compton, and Commerce. Metal plating, warehousing, auto wrecking, and recycling are a large component of these businesses. About two-thirds of the facilities are greater than one acre in size and about 40 of them are larger than 10 acres.

There are a total of 204 construction sites enrolled under the construction storm water permit. About twice as many of these are in the upper watershed (which includes the San Fernando Valley) and the construction in this watershed is fairly evenly divided between commercial and residential. About one-half of them occur on sites that are larger than ten acres.

IMPAIRMENTS: The majority of the LA River Watershed is considered impaired due to a variety of point and nonpoint sources. The 1998 303(d) list implicates pH, ammonia, a number of metals, coliform, trash, scum, algae, oil, chlorpyrifos as well as other pesticides, and volatile organics in that impairment. Some of these constituents are of concern throughout the length of the river while others are of concern only in certain reaches (see chart below). Impairment may be due to water column exceedances, excessive sediment levels of pollutants, or bioaccumulation of pollutants. The beneficial uses threatened or impaired by degraded water quality are aquatic life, recreation, groundwater recharge, and municipal water supply.

The table below gives examples of typical data ranges which led to the listings.

Impairments	**Applicable Objective/Criteria**	**Typical Data Ranges Resulting in Impairment**	**303(d) Listed Waters/Reaches**
ammonia	Basin Plan narrative objective		Tujunga Wash (d/s Hansen Dam to Los Angeles River) Los Angeles River Reach 5 (within Sepulveda Basin)
	Basin Plan numeric objective: varies depending on pH and temperature but the general range is 0.53 - 2.7 mg/l of total ammonia (at average pH and temp.) in waters designated as WARM to protect against chronic toxicity and 2.3 - 28.0 mg/l to protect against acute toxicity	ND - 34.9 mg/l (mean of 10.7 ± 4.8)	Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.) Los Angeles River Reach 3 (Riverside Dr. to Figueroa St.) Los Angeles River Reach 2 (Figueroa St. to u/s Carson St.) Los Angeles River Reach 1(u/s Carson St. to estuary) Burbank Western Channel Rio Hondo Reach 2 (from Whittier Narrows Flood Cntrl Basin to Spreading Grounds) Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River) Lincoln Park Lake Echo Park Lake Lake Calabasas
nutrients (algae)	Basin Plan narrative objective		Los Angeles River Reach 5 (within Sepulveda Basin) Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.)
	Basin Plan numeric objective: nitrates-N + nitrites-N not greater than 10 mg/l	0.2 - 14.5 mg/l (mean of 2.7 ± 3.2)	Los Angeles River Reach 3 (Riverside Dr. to Figueroa St.) Los Angeles River Reach 2 (Figueroa St. to u/s Carson St.) Los Angeles River Reach 1(u/s Carson St. to estuary) Burbank Western Channel Verdugo Wash (Reaches 1 & 2) Arroyo Seco Rch 1 (d/s Devil's Gate Dam) & Rch 2 (W. Holly Ave. to Devil's Gate) Lincoln Park Lake Echo Park Lake Lake Calabasas
Scum, odors	Basin Plan narrative objective		Tujunga Wash (d/s Hansen Dam to Los Angeles River) Los Angeles River Reach 5 (within Sepulveda Basin) Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.) Los Angeles River Reach 3 (Riverside Dr. to Figueroa St.) Los Angeles River Reach 2 (Figueroa St. to u/s Carson St.) Los Angeles River Reach 1(u/s Carson St. to estuary) Burbank Western Channel Peck Rd Lake Lincoln Park Lake Echo Park Lake Lake Calabasas
pH	Basin Plan numeric objective: 6.5 - 8.5 pH units	7.0 - 10.6 pH units (mean of 9.2 ± 0.9)	Los Angeles River Reach 1(u/s Carson St. to estuary) Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River) Compton Creek Echo Park Lake Lake Calabasas

Impairments	Applicable Objective/Criteria	Typical Data Ranges Resulting in Impairment	303(d) Listed Waters/Reaches
Low DO/organic Enrichment	Basin Plan narrative objective		Lincoln Park Lake Peck Rd Lake
	Basin Plan numeric objective: annual mean greater than 7.0 mg/l no single sample less than 5.0 mg/l	0.2 - 15.2 mg/l (mean of 6.0 ± 4.0)	Lake Calabasas
Trash	Basin Plan narrative objective		Tujunga Wash (d/s Hansen Dam to Los Angeles River) Los Angeles River Reach 5 (within Sepulveda Basin) Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.) Los Angeles River Reach 3 (Riverside Dr. to Figueroa St.) Los Angeles River Reach 2 (Figueroa St. to u/s Carson St.) Los Angeles River Reach 1(u/s Carson St. to estuary) Burbank Western Channel Verdugo Wash (Reaches 1 & 2) Arroyo Seco Reach 1 (d/s Devil's Gate Dam) & Reach 2 (W. Holly Ave. to Devil's Gate) Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River) Peck Rd Lake Echo Park Lake Lincoln Park Lake
Copper	USEPA water quality criteria: varies based on hardness but typically 12 - 47 ug/l	63 ug/l (maximum)	Tujunga Wash (d/s Hansen Dam to Los Angeles River) Compton Creek Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River) Echo Park Lake Lake Calabasas
Lead	USEPA water quality criteria: varies based on hardness but typically 3.2 - 25 ug/l	140 ug/l (maximum)	Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.) Los Angeles River Reach 2 (Figueroa St. to u/s Carson St.) Los Angeles River Reach 1(u/s Carson St. to estuary) Monrovia Cyn Creek Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River) Compton Creek Peck Rd Lake Lincoln Park Lake Echo Park Lake
Cadmium	USEPA water quality criteria: varies based on hardness but typically 1.1 - 4.0 ug/l	3 ug/l (maximum)	Burbank Western Channel
Zinc	USEPA water quality criteria: varies based on hardness but typically 106 - 414 ug/l	1,340 ug/l (maximum)	Lake Calabasas Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River)
Selenium	USEPA water quality criteria: 5.0 ug/l	9.3 ug/l (maximum)	Aliso Canyon Wash
coliform	Basin Plan numeric objective: Inland: fecal coliform not to exceed log mean of 200 mpn/100ml in 30-day period and not more than 10% of samples exceed 400 MPN/100ml Beaches: total coliform not to exceed 1,000 MPN/100ml in more than 20% of samples in 30 days and not more than 10,000 MPN/100ml at any time	ND - 93,000 MPN/100ml	Tujunga Wash (d/s Hansen Dam to Los Angeles River) Los Angeles River Reach 6 (u/s of Sepulveda Basin) Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.) Los Angeles River Reach 2 (Figueroa St. to u/s Carson St.) Los Angeles River Reach 1(u/s Carson St. to estuary) Verdugo Wash (Reaches 1 & 2) Arroyo Seco Rch 1 (d/s Devil's Gate Dam) & Rch 2 (W. Holly Ave. to Devil's Gate) Rio Hondo Reach 1 (Santa Ana Fwy to Los Angeles River) Rio Hondo Reach 2 (Whittier Narrows Flood Control Basin to Spreading Grounds) Compton Creek Bell Creek
chlorpyrifos	Basin Plan narrative objective		Los Angeles River Reach 5 (within Sepulveda Basin)
Chem A*	National Academy of Science Guideline (tissue): 100 ng/g		Los Angeles River Reach 5 (within Sepulveda Basin)
PCBs	State Board numeric objective (tissue): Max. Tissue Residue Level 2.2 ng/g		Echo Park Lake
DDT	State Board numeric objective (tissue): Max. Tissue Residue Level 32.0 ng/g		Peck Rd Lake Lake Calabasas
chlordane	State Board numeric objective (tissue): Max. Tissue Residue Level 1.1 ng/g		Peck Rd Lake

* Chem A refers to the sum of the chemicals aldrin, dieldrin. chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene

Potential sources of pollution:

- POTWs
- Industrial discharges
- septic systems
- landfills
- Nonpoint sources (horse stables, golf courses)
- Illegal trash dumping
- Cross-contamination between surface and groundwater

Ground water resources in the watershed are also impacted. Impacts, both real and threatened, include those from hundreds of cases of known leaking underground storage tanks that have contaminated soil and/or ground water with petroleum hydrocarbons and volatile organic compounds. There are also a number of cases of refineries/tank farms that have contaminated soil and/or ground water. Seawater intrusion (chloride) is of concern in other areas of the watershed which has necessitated wellhead treatment, shutdown, or blending. Finally, a number of wells have been shut down due to nitrate contamination with septic systems as a likely source.

ISSUES: The major issues of concern in the watershed include: 1) protection and enhancement of fish and wildlife habitat, 2) removal of exotic vegetation, 3) enhancement of recreational areas, 4) attaining a balance between water reclamation and minimum flows to support habitat, 5) management of storm water quality, 6) assessment of other nonpoint sources including horse stables, golf courses, and septic systems, 7) pollution from contaminated ground water, 8) groundwater recharge with reclaimed water, 9) contamination of ground water by volatile organic compounds, 10) leakage of MTBE from underground storage tanks, 11) groundwater contamination with heavy metals, particularly hexavalent chromium, and 12) contaminated sediments within the LA River estuary.. Some of these issues are only indirectly related to water quality but are those identified by stakeholder groups.

CURRENTLY SCHEDULED TMDLS:

Type of TMDL	Listed Waters/Reaches in TMDL	Year Scheduled for Completion (FY)
trash	Tujunga Wash (d/s Hansen Dam to Los Angeles River) Los Angeles River Reaches 1, 2, 3, 4, 5 Burbank Western Channel Verdugo Wash Reaches 1 & 2 Arroyo Seco Reaches 1 and 2 Rio Hondo Reach 1	01/02
nitrogen and related effects	Tujunga Wash (d/s Hansen Dam to Los Angeles River) Los Angeles River Reaches 1, 2, 3, 4, 5 Burbank Western Channel Verdugo Wash Reaches 1 & 2 Arroyo Seco Reaches 1 and 2 Rio Hondo Reaches 1 and 2 Compton Creek	01/02
coliform	Los Angeles River Reaches 1, 2, 4, and 6 Tujunga Wash (d/s Hansen Dam to LA River) Verdugo Wash Reaches 1 and 2 Arroyo Seco Reach 1 Rio Hondo Reaches 1 and 2 Compton Creek	01/02

Type of TMDL	Listed Waters/Reaches in TMDL	Year Scheduled for Completion (FY)
metals	Tujunga Wash (d/s Hansen Dam to Los Angeles River) Compton Creek Burbank Western Channel Los Angeles River Reaches 1, 2, 4 Rio Hondo Reach 1 Monrovia Cyn Creek Aliso Canyon Wash	03/04
Hist. pesticides	Los Angeles River Reach 5 (within Sepulveda Basin)	05/06

We see a need for an additional 1.9 PYs and $100,000 of contract monies for FY02/03 TMDL work conducted in this watershed.

Stakeholder Groups

Los Angeles/San Gabriel Rivers Watershed Council The group was formed in 1995 following a large watershed conference held in the area which served as a springboard. The Council has a board of directors and became incorporated as a nonprofit organization in 1996. The group is tracking watershed activities, but has primarily focused on flood control issues in the Los Angeles River as well as opportunities to create greenbelts and restore habitat. The Council's goal is to help facilitate a process to preserve, restore, and enhance all aspects of the two watersheds. The Council recently published a document entitled "Beneficial Uses of the Los Angeles and San Gabriel Rivers" which summarizes a great deal of information about the joint watershed. Generally one staff person attends these monthly council as well as monthly board of directors meetings. More information about this group may be found at their website http://www.lasgrwc.org/.

Los Angeles Basin Contaminated Sediment Task Force Contaminated dredged material disposal is a major issue in the Los Angeles Region due to its large commercial ports and the several major marina complexes and small vessel harbors. Queensway Bay, at the mouth of the watershed, receives a large sediment load that impacts recreational uses. The U.S. Army Corps of Engineers frequently conducts maintenance dredging to remove accumulated sediments from this area. The need for a long-term management strategy for dealing with contaminated sediments in the Los Angeles area has been identified and the Task Force will prepare this strategy. Representatives on the Task Force include a number of federal and state agencies as well as port and environmental group representatives.

Past Significant Activities

WATERSHED MANAGEMENT

Key regulatory staff were part of a LA River Watershed "team" for purposes of preparing a State of the Watershed Report/Water Quality Characterization Report (a draft of which was released April 18, 1998) and for coordinating permit renewals and regional monitoring program development.

Current Activities

The following is a summary of current Regional Board activities in the Los Angeles River Watershed which are expected to continue as part of the Watershed Management Initiative on a watershed basis. Activities which address the aforementioned pollutants or issues of concern are highlighted. Additionally, there are a large number of projects and activities currently underway by watershed stakeholders ranging from a wetlands assessment funded by the Coastal Conservancy and others to an NPDES Permit Public Education Program funded by the City of Alhambra.

CORE REGULATORY

Continuing core regulatory activities that have been integrated into the watershed management approach include (but are not limited to) renewal/revision of NPDES permits including those covered under Regional Board general permits. Compliance inspections, review of monitoring reports, response to complaints, and enforcement actions relative to the watershed's NPDES permits will continue. A draft watershed-wide regional monitoring program was created in 1998/99 and our modifications and improvements to discharger monitoring programs will target data gaps and eliminate duplicative and unnecessary monitoring. Coordination between major dischargers, environmental groups, volunteer monitors, and resource and regulatory agencies will be critical to the success of this task. Because of the large number of permits, renewal of permits in this watershed during its first cycle was spread over two years. Due to limited resources, only the basic regulatory activities are performed: review of dischargers' monitoring reports, minimum necessary inspections and sampling, issuance/renewal of permits, levels 1 and 2 enforcement actions (noncompliance and violation notification), case handling, and answering inquiries from the public.

The Los Angeles River Watershed falls within Los Angeles County which has been covered by a municipal storm water permit since 1990. The third five-year permit was and adopted on December 13, 2001. This permit covers Los Angeles County and all the incorporated cities, except the City of Long Beach, which was issued a separate municipal storm water permit in 1999. The Los Angeles County Flood Control District is the Principal Permittee. Under the requirements of the permit, the Permittees will implement the Storm Water Quality Management Plan which includes the following components: (a) Program Management; (b) Public Information and Participation Program; (c) Industrial/Commercial Facilities Program; (d) Development Planning Program; (e) Programs for Construction Sites; (f) Public Agency Activities; and (e) Illicit Connection/Illicit Discharge Elimination Program. These programs collectively are expected to reduce pollutants in storm water discharges to the maximum extent practicable. In addition, the County will conduct a storm water monitoring program to estimate mass emissions and toxicity of pollutants in its waters, evaluate causes of toxicity, and several other components to characterize storm water discharges and measure the effectiveness of the Storm Water Quality Management Program. The permit can be downloaded from the Regional Board Storm Water website at http://www.swrcb.ca.gov/rwqcb4/html/programs/Stormwater/stormwater.html.

An important requirement of both the Los Angeles County and the City of Long Beach municipal storm water permits is implementation of the Standard Urban Storm Water Mitigation Plans (SUSMPs) and numerical design standards for Best Management Practices (BMPs), which municipalities began implementing in February 2001. The final SUSMP was issued on March 8, 2000, and amended in the permit, adopted on December 13, 2001. The SUSMP is designed to ensure that storm water pollution is addressed in one of the most effective ways possible, i.e., by incorporating BMPs in the design phase of new development and redevelopment. It provides for

numerical design standards to ensure that storm water runoff is managed for water quality and quantity concerns. The purpose of the SUSMP requirements is to minimize, to the maximum extent practicable, the discharge of pollutants of concern from new and redevelopment. The requirements are very similar to the Ventura County SQUIMP.
The numerical design standard is that post-construction treatment BMPs be designed to mitigate (infiltrate or treat) storm water runoff from the first ¾ inch of rainfall, prior to its discharge to a storm water conveyance system. Other standards also apply; additional information on the SUSMP may be found on the Regional Board Storm Water website at http://www.swrcb.ca.gov/rwqcb4/html/news/susmp/susmp_details.html.

Regulation of groundwater protection activities is intended to eventually become integrated into the watershed management approach while land disposal activities will likely remain separate. Accomplishment of core regulatory activities are a high priority that is currently funded; however, funds do not tend to go far enough to encompass extensive enforcement and response to complaints; however, enforcement is a high priority.

MONITORING AND ASSESSMENT

Work on a TMDL for nitrogen in the watershed is currently underway. Intensive monitoring has been conducted and a watershed model has been developed by SCCWRP.

NONPOINT SOURCE PROGRAM

The major nonpoint source-generated pollutants found throughout the watershed that have contributed to its impairments are lead, coliform, and oil, while chlorpyrifos is implicated in the upper watershed. These pollutants are common components of dry weather urban runoff and wet weather storm runoff. In many ways, the "point source" municipal stormwater permit for LA County will be a major tool in nonpoint source pollution elimination. Permitees are responsible for development and implementation of storm water management plans, for plans to eliminate non-storm water discharges (dry weather urban runoff), and must apply best management practices to prevent storm water pollution.

The Regional Board encourages pollution prevention and source control; the 205(j) and 319(h) grants are tools to provide funds for these types of projects. For FY02/03, we have listed as a priority for 319(h) grant funding activities which demonstrate effective ways to reduce loadings of trash, nutrients, and coliform through pilot projects which implement trash reduction, management of horse corral runoff, golf course irrigation water runoff, urban runoff, or implementation of septic correction measures.

A current 319(h) project by the Friends of the Los Angeles River will terminate in 2002. The project involves volunteer monitoring of the river for physical and chemical parameters and surveys of the natural bottom portions of the river.

The City of Los Angeles Department of Public Works and Stormwater Management Division received a Proposition 13 grant (Nonpoint Source Subaccount) in 2001 to install a low-flow diversion and treatment system for the 8th Street drainage area leading into the river. The most severe bacterial pollution along the entire river has been found at this storm drain. All dry weather flow will be diverted to the sewer system. Trash and other solid pollutants will be captured both during diversion and non-diversion periods.

Proposition 13 funds (Watershed Protection Subaccount) were also awarded to the nonprofit organization the Los Angeles and San Gabriel Rivers Watershed Council to evaluate the effectiveness of infiltration BMPs on water quality at various depths as urban runoff infiltrates into the groundwater supply.

Staff will also be involved in stakeholder meetings and will assist in the development of watershed management plans which will be expected to address strategies to reduce point and nonpoint source pollutants as well as other issues other than strictly water quality concerns.

BASIN PLANNING

A priority basin planning issue is to implement the Basin Plan's ammonia objective. Some dischargers believe the objective may be too stringent for certain waters and that site-specific objectives may be justified while some resource agencies and many environmental groups support the current objective. The Regional Board objective for ammonia allows for studies to be performed to explore site-specific objectives, if appropriate. Dischargers which must meet this objective by June 2002, and should be well on their way to compliance by this point. This issue is especially relevant in the LA River since ammonia is already known to be a pollutant of concern.

The 2001 Triennial Review identified adoption of TMDLs as Basin Plan amendments the highest priority issue that can be accomplished given existing resource levels. Approximately 0.5 PYs/TMDL is utilized for this task. Determination of appropriate nutrient (nitrate and phosphate) objectives for protection of aquatic life is also a high priority that is currently unfunded. 2 PYs are needed for this task.

Basin Planning activities will include continued participation in both internal and external watershed planning efforts and further incorporation of watershed management and principles and watershed-specific priorities into future updates of the Basin Plan, where appropriate.

Review and comment on EIRs for the highest priority projects within the watershed will continue; however, there is currently no funding for this program.

WETLANDS PROTECTION AND MANAGEMENT

The Southern California Wetlands Recovery Project considers of various parcels along the lower Los Angeles River in the city of Long Beach a high priority in the current year's workplan. A combined Lower Los Angeles and San Gabriel Rivers Habitat Needs Assessment is another high priority project. Big Tujunga Wash Revegetation and Restoration is also in the current year's workplan.

The San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy is an independent State agency within the Resources Agency. State law established the Conservancy in 1999. Its jurisdiction includes the San Gabriel River and its tributaries, the Lower Los Angeles River and its tributaries, and the San Gabriel Mountains. Puente Hills, and San Jose Hills. It was established to preserve open space and habitats in order to provide for low-impact recreation and educational uses, wildlife and habitat restoration and protection, and watershed improvements within its jurisdiction. It is currently involved with beginning work on an open space plan for the area. Propositions 12 and 13 have directed funds to the Conservancy.

The Santa Monica Mountains Conservancy is a state agency created by the Legislature in 1979 charged with primary responsibility for acquiring property with statewide and regional significance, and making those properties accessible to the general public. The Conservancy manages parkland in the Santa Monica Mountains, Santa Susana Mountains, the Simi Hills, the Santa Clarita Woodlands, the Whittier-Puente Hills, the Sierra Pelona, the Los Angeles River Greenway, the Rio Hondo, the Verdugo Mountains, the San Gabriel Mountains, and the San Rafael Hills. The agency's goals are to: 1) implement the Santa Monica Mountains Comprehensive Plan, 2) implement the Rim of the Valley Trails Corridor Master Plan, 3) implement the Los Angeles County River Master Plan, 4) further cooperation with local governments in the region to secure open space and parkland, and 5) expand education, public access, and resource stewardship components in a manner that best serves the public, protects habitat, and provides recreational opportunities.

WATERSHED MANAGEMENT

Watershed management planning for three subwatersheds draining to the river received Proposition 13 (Watershed Protection Subaccount) funding in 2001. The nonprofit group Northeast Trees will direct development of a watershed plan for the Arroyo Seco Subwatershed. The nonprofit group the Los Angeles and San Gabriel Rivers Watershed Council will direct development of a watershed plan for the Compton Creek Subwatershed. Finally, the San Gabriel Valley Council of Governments will direct development of a watershed plan for the Rio Hondo Subwatershed.

Near-term Activities

Specific resource needs are described in the Region-wide Section of this document.

Following renewal of the watershed's permits, core regulatory activities will focus on permit compliance, monitoring report review, and enforcement as needed. Members of the watershed team will be involved with periodic updates of the State of the Watershed Report. Additionally, there will be on-going interaction with stakeholders and followup on goals established during the permit renewal phase. Pending completion of a final TMDL we will pursue agreement on pollutant loadings that can be implemented through future NPDES permits, the municipal stormwater permit, and through other nonpoint source control measures.

A preliminary review of resources for core regulatory activities against cost factors has determined that our region is seriously underfunded for our baseline program. We will be seeking more funding for our core program activities.

Monitoring and special studies: Quarterly water quality assessment monitoring at a minimum of 14 stations along the LA River Watershed (particularly its tributaries) with sampling for general minerals, nutrients, metals, coliform, pesticides, radioactivity, volatile organics, and other organics, as well as gathering baseline information on trash, continues to be needed. **The annual cost of this monitoring is estimated at $113,400.** This monitoring will be in addition to monitoring of the main channel conducted by dischargers. **Additionally, a number of special studies will be needed which are expected to cost a total of $108,000.** TMDLs that need to be developed include:

1) Ammonia: The first phase of the TMDL was completed in FY97/98. Currently the model is at the calibration stages for dry and wet weather simulations. Historical data as been gathered from the Regional Board and various other agencies to calibrate the model. Investigation

of nitrogen uptake by algae and algal growth rates and river nitrification rates are currently underway, and will be available for use in the model simulations.

2) Coliform: A first review indicates that the coliform contributions from POTWs is not significant. To give us a rough estimate of the sources of coliform, special studies are needed to determine the type of coliform present in the river: from human waste, horses, wildlife, or other. **These studies are estimated to cost $75,000.** Once the sources have been identified, a load allocation may be calculated, and BMPs or other solutions may be proposed to achieve such allocations.

3) Metals: To develop a first phase TMDL for metals, more monitoring is needed. However, staff resources should be dedicated to data assessment and analysis, and to prepare an implementation strategy.

4) Trash: The municipal stormwater permit co-permittees in coordination with the Regional Board will be conducting a study to determine the threshold level for beneficial use impairment as part of this TMDL effort. A draft TMDL is out for review.

5) Pesticides: A section of the river has been listed impaired due to pesticides found in fish or shellfish. POTWs are currently implementing effluent limitations to control pesticide loadings. Nonpoint source contributions need to be estimated. If toxicity money is available, **$100,000 would allow us to pinpoint specific areas and seasons where we have problems.**

6) Volatile organic compounds: A section of the river has been listed impaired due to VOCs from ground water. As efforts to clean up the ground water in the San Fernando Valley are implemented, staff expects that contamination from VOCs will decrease. Monitoring of VOCs is needed to determine if this assumption is correct.

This watershed will be a focus for SWAMP monitoring in FY03/04.

Our efforts to involve stakeholders also shall include exploration of funding options (especially for implementation of nonpoint source measures) and continuation of other outreach activities, such as presentations, meetings, and participation in environmental events.

Also, efforts are underway to address problems with urban runoff (through the storm water municipal and industrial NPDES permits) and septic systems. Future activities should focus on horse corrals and golf courses, parks or other green areas. Activities proposed include outreach to implement BMPs. Tier I activities also should include monitoring and assessment to determine if Tier 2 or Tier 3 activities are needed to ensure successful implementation of BMPs and reduction of nitrogen and coliform loadings.

We will maintain involvement with stakeholder activities and pursue funding options, especially those involving implementation of nonpoint source measures (coordinate 205(j) and 319(h) activities) as well as other outreach activities such as speeches, meetings, and participation in environmental events. As resources permit, we will also work with stakeholders to implement provisions of the Coastal Zone Act Reauthorization Amendments.

Potential Long-term Activities

In the long-term, Basin Planning activities will include continued participation in both internal and external watershed planning efforts and further incorporation of watershed management and principles and watershed-specific priorities (such as more refined regional procedures for conducting use attainability analyses and site-specific objective development) into the next

update of the Basin Plan. More detailed analysis regarding certain beneficial uses needs to be done (species inhabiting/using the river, potential for aquatic life in the river, future water supply needs/diversions, ground water recharge areas). We will continue to pursue funding for Basin Planning programs. Comments on watershed issues in CEQA documents (for the highest priority projects) will continue to be prepared; however, there is currently no funding for this program.

Other issues include:

- Balancing maintenance of habitat in the river with flood control needs
- Evaluation of areas in the river for restoration purposes
- Evaluating critical habitat areas
- Evaluating the most protective (while providing flood control) long-term plans for vegetation/sediment removal under the 401certification program
- Evaluate and implement low flow diversions where appropriate
- Assist in greenway developments along the river
- Evaluate estuarine habitats and water quality
- Implementing biological monitoring